

Discussion on how to (and how not to) obtain a breath sample from a subject using the DMT.

Sample acceptance parameters are incorporated in the DataMaster DMT such that a breath sample will be accepted by the DMT only if its characteristics are consistent with those of end expiratory breath and meet the requirements of the software designed to identify the characteristics of end expiratory breath.

The DataMaster DMT Owners Guide (revised 7/27/2007) and the DMT Product Overview (Copyright 2010) are documents intended to provide technical information and suggestions for best practical use. THEY ARE NOT OPERATOR'S MANUALS. These documents contain explanations on how it is suggested that a subject be instructed to deliver a proper breath sample and why instructing otherwise might make it more difficult in obtaining a sample.

No two breath samples are the same. The objective is to obtain a valid, deep lung sample from a diverse population. The acceptance parameters are designed such that regardless of how the sample is delivered, if these parameters are satisfied, the sample will be accepted and analyzed. A detailed explanation of these parameters is contained in the Owners Guide and Product Overview.

The basic premise is this: If the acceptance parameters are met, the sample will be accepted. If they are not, it won't. Nothing regarding how the subject is instructed to deliver a sample will have any impact whatsoever on the above premise.

Based upon the requirements to obtain a valid sample, the most effective way of delivering a sample, (which is described in the two referenced documents) is by taking a reasonably normal inhaled breath and exhaling at a moderate rate until as much air is expelled as can be expected without significant discomfort.

Anything deviating from this technique MAY cause the sample to be longer than necessary, perceived by the subject to be "difficult" or possibly not accepted by the instrument. It will not, if accepted by the DMT, in any way considered to be anything but a proper breath sample.

In the DataMaster DMT Owners Guide (revised 7/27/2007), there is the statement "Do not tell the subject to blow "hard"". Taken in context of the discussion above, this statement is clearly one meant to avoid a potential obstacle in obtaining a breath sample. If the statement is disregarded and one is still able to obtain an accepted breath sample on the DMT, that breath sample is A VALID ONE. An analogy might be disregarding the suggested route on your GPS and still arriving at your destination.

Intentional or unintentional disregarding of the caution to not "blow hard" will, at best, cause no problem at all and, at worst, may cause the sample not to be accepted by the DMT. It will not and cannot cause any other issues, including any problems with instrument accuracy.

Given the tendencies by some in the defense community to take the statement about blowing hard out of context and selling it as an absolute requirement necessary in order for the breath sample to be deemed valid, the wording was modified somewhat in the subsequent document, the DMT Product Overview (Copyright 2010). In this document, the wording was changed to "Instructing the subject to take a deep breath or to blow hard is not helpful".

Although the wording is different, the underlying intent of providing useful advise to the user is there.

On a final note, the above referenced documents were prepared and written for an audience that had little, if any, foreknowledge of the in-depth technical aspects of the DMT. They were not meant to serve as reference material gleaned from to establish any rules, regulations or procedures. Those, rather, are left to the governing agency. Those governing agencies do obtain additional detailed technical instruction so as to have a deep, comprehensive understanding of the DMT prior to establishing the DMT as the instrument of use in a breath test program.



John Fusco
President



Dave Radomski

Dave Radomski
Vice president